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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,918	04/28/2008	Jean-Pierre Chochoy	VAL 221 P2 - MFR 0195 PCT	7886

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EXAMINER	
PHAN, THIEM D	

ART UNIT	PAPER NUMBER
3729	

MAIL DATE	DELIVERY MODE
03/03/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/597,918	CHOCHOY, JEAN-PIERRE	
	Examiner	Art Unit	
	THIEM PHAN	3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) *16-18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/18/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, Claims 1-15, filed on 1/14/11 is acknowledged.

Applicant traverses the Restriction Requirement on the grounds that the search for both the inventions of Group I and Group II is not unduly burdensome.

In response, the inventions of Groups I and II each have a separate status in the art and clearly have a separate field of search which would be non-coextensive.

In accordance with MPEP § 803, the examiner has demonstrated that the inventions of Groups I and II are each independent or distinct as claimed (filed on 12/21/10) and a serious burden would be placed on the examiner.

Accordingly, Claims 16-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim.

The Restriction filed on 12/21/10 is hereby **made Final**.

Applicant is required to cancel these nonelected Claims (16-18) or take other appropriate action.

An Office Action on the merits of Claims 1-15 now follows.

Title

2. The following title is suggested: "Method of inserting an undulating winding into a stator".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson (US 4,750,258).

Regarding claim 1, Anderson teaches a method of axially inserting multiple pole, multiple phase windings, comprising:

- shaping each winding (Fig. 2, G), the wire thereof being formed into a succession of crenellations connected by linking segments, each crenellation comprising two lateral branches (2 Side Branches of G1A) facing one another each intended to be inserted at a receiving position of a slot, and a top branch (Opposite of G1A & inside of 1) connecting the two lateral branches;
- placing the windings on an insertion tool (Fig. 12, Items 7, 9, 11, 13 & 29);
- inserting the turns into the slots of the stator (Fig. 13, 3), characterized in that the step of placing the windings is implemented on a cylindrical insertion tool (Fig. 1, 7), each winding constituting several turns around the insertion tool, these turns being superimposed in a given order, and in that the windings are wound around the insertion tool at the same time, the turns that follow one another in said given winding order belonging alternately to the different windings (Fig. 2, G1-G3).

Regarding claim 2, Anderson teaches that the step of inserting the turns (Figs 12-13, G) into the slots (S) of the stator (3) is implemented in the reverse order to the winding order, the lateral branches of these turns progressively occupying radially more inner positions.

Regarding claim 3, Anderson teaches that the winding order comprises a succession of identical sequences (Fig. 2, G), each sequence consisting of one turn of each winding.

Regarding claim 4, Anderson teaches that, on the insertion tool, the crenellations (Fig. 2, Both side windings of G2A) extend in respective planes parallel to the axis of symmetry of the insertion tool, or slightly inclined with respect to this axis.

Regarding claim 5, Anderson teaches that the inserting of the windings into the slots is implemented by moving the insertion tool (Figs. 12-13, Items 11 & 13) along the axis of symmetry of the stator (3).

Regarding claim 6, Anderson teaches that the top branches (Fig. 14, G3B) of the crenellations are curved and form a winding overhang on a first axial side of the stator.

Regarding claim 7, Anderson teaches that the linking segments (Fig. 14, G3B) connect two respective lateral branches of two neighboring crenellations along the wire and have a curved shape, these segments forming a winding overhang on a second axial side of the stator opposite to the first.

Regarding claim 8, Anderson teaches that the top branches and/or the linking segments (Fig. 14, G3B) formed at step 1) have increasing or decreasing heights along the windings.

Regarding claim 9, Anderson teaches that the turns whose lateral branches (Fig. 14, G1A) are inserted in radially outer positions of bottoms of slots have top branches and/or linking segments (Fig. 14, G3B) with heights relatively greater than the turns whose lateral branches

occupy radially inner positions (S).

Regarding claim 10, Anderson teaches that, after step 3), a step 4) of shaping the winding overhangs by inclining the linking segments (Fig. 14, G3B) and/or the top branches (G3A) towards the inside.

Regarding claim 11, Anderson teaches that, after step 3), a step 4) of shaping the winding overhangs by inclining the linking segments (Fig. 14, G3B) and/or the top branches (G1A) towards the outside.

Regarding claim 12, Anderson teaches that, between steps 1) and 2), a step 1') of local shaping of the wire in areas of this wire intended to cross other wires (Fig. 2, C & CS), or other areas of the same wire, once the windings have been inserted into the stator.

Regarding claim 13, Anderson teaches that the wire has a round cross-section (Fig. 12, 37a), the slots (Fig. 15, S) having a circumferential width that is a multiple of the diameter of the wire.

Regarding claim 14, Anderson teaches that the slots have a circumferential width corresponding to the diameter of the wire (Fig. 9, C), the lateral branch occupying the radially most inner position being deformed by broadening in a circumferential direction so as to hold the lateral branches occupying the other positions inside the slot.

Regarding claim 15, Anderson teaches that the slots have a circumferential width equal to at least two diameters of the wire (Fig. 2, C & CS) and have on a radially inner side an opening partially closed on two opposite sides by two axial steps, the lateral branches occupying the slots being held inside it by a flat wedge (Col. 7, line 19) resting on the steps on an inner side of the slot.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M, 8AM - 2PM, and W & Th, 8AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phan Thiem/
Primary Examiner, Art Unit 3729

February 25, 2011